

REMARKS

Claims 25, 26, 28, 33-36, and 42-44 are pending in the present application. Claims 25-37 and 39-41 were examined. Claims 27, 29-32, 37, and 39-41 have been cancelled and new claims 42-44 have been added by amendment.

In the office action mailed December 1, 2005 (the "Office Action"), claims 30-36 were rejected under 35 U.S.C. 112, first paragraph, and claim 29 was objected to under 37 C.F.R. 1.75(c). The Examiner rejected claims 25, 26, 37, and 39 under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 4,916,002 to Carver (the "Carver patent") and rejected claims 37 and 39-41 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,027,982 to Peidous *et al.* (the "Peidous patent"). The Examiner further rejected claims 30-32 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,232,203 to Huang (the "Huang patent"). Claims 27 and 28 were objected to by the Examiner as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

The Examiner's objections and rejections of claims 27, 29-32, 37, and 39-41 are now moot in light of the cancellation of these claims.

With respect to the Examiner's rejection under 35 U.S.C. 112, first paragraph, as related to claims 33-36, the Examiner is directed to the material page 4, line 24-page 5, line 20 and Figures 3D-3F of the present application. As described in the cited material, the silicon nitride layer 306 is etched using an isotropic etch to undercut the hard mask layer 310. The thickness of the silicon nitride layer 306 can be used to roughly gauge the dimension of the opening into which insulating material will be deposited. The result is shown in Figure 3D, with the undercut of the hard mask layer 310 approximately equal to the thickness of the silicon nitride layer 306. With approximately 45 degree facets, the dimension of the opening through the silicon nitride layer 306 adjacent the pad oxide 304 and substrate 302 generally corresponds to the dimension of the opening through the hard mask layer 310. A trench 330 is then formed by anisotropically etching the substrate 302 through the openings in the silicon nitride layer 306 and the hard mask layer 310, as shown in Figure 3E. As a result, the upper dimension of the trench 330 generally corresponds to the lower dimension of the opening through the silicon nitride layer 306, as shown in Figures 3E and 3F.

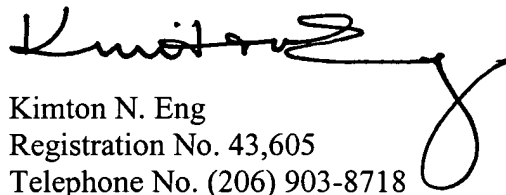
Claim 33 recites that the opening through the layer of silicon nitride over the trench has a first dimension along the first side when is approximately equal to the trench opening dimension. In applying the particular embodiment illustrated by Figures 3D-3F to claim 33, the first side corresponds to the "lower" surface of the silicon nitride layer 306 and the first dimension is the dimension of the faceted opening along the lower surface of the silicon nitride layer 306. As previously described, the trench 330 can be formed by applying an anisotropic etch to the substrate 302 through the faceted opening, thus resulting in the trench 330 having an upper dimension that generally corresponds to the dimension of the faceted opening along the lower surface of the silicon nitride layer 306. The comparison between claim 33 and the embodiment described in the present application with reference to Figures 3D-3F demonstrates that at the time the present application was filed, the subject matter of claim 33 was sufficiently described to convey that Applicants were in possession of the claimed invention. Therefore, the rejection of claim 33-36 under 35 U.S.C. 112, first paragraph, should be withdrawn.

Claim 25 has been amended to incorporate the limitations of allowable claim 27 and new claim 42 is directed to the subject matter of allowable claim 28. Claims 26 and 28, which depend from claim 25, and claims 43 and 44, which depend from claim 42, are allowable based on their dependency from a respective allowable base claim. The amendments made to claims 25 has been made to expedite the allowance of allowable subject matter. The amendments, however, should not be interpreted as reflecting Applicants' belief that the subject matter of the unamended claims is unpatentable, or that the Applicants have forfeited the subject matter of the unamended claims. Therefore, the presumption that Applicants have tacitly acknowledged the merit of the rejections or that the references cited by the Examiner are relevant to the patentability of the present invention should not be made.

All of the claims pending in the present application are in condition for allowance.
Favorable consideration and a timely Notice of Allowance are earnestly solicited.

Respectfully submitted,

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Enclosures:

Postcard

Fee Transmittal Sheet (+ copy)

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